

Protozoal diseases of the Horse

Equine Protozoal Myeloencephalitis (EPM)

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The organism *Sarcocystis neurona*, a single-celled animal, can cause equine protozoal myeloencephalitis (EPM), a neurological disease that can affect equines of any age, sex, and in any location throughout the United States. The parasitic cycle involves birds eating plants and other animals of prey that carry the sporocysts of the organism. The opossum then eats birds killed by the effects of the disease. The organism reproduces sexually in the opossum and is passed out in the feces. The horse picks up the organism by eating opossum feces dropped in feed or hay. The horse is a dead-end host, meaning the horse is noncontagious.

Clinical Signs

1. asymmetric incoordination (incoordination on one side of the horse or the other)
2. loss of proprioception (loss of the sense of awareness of the position of the limbs)
3. depending on severity, various levels of seizures, muscle atrophy (leading to loss of ability to use muscles), and facial paralysis.

This lack of proprioception is often confused with lameness. Not all horses exposed to EPM will show clinical signs, and some may develop an immunity and fight off the disease.

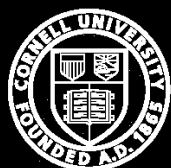
Treatment

Antiprotozoal drugs are used in treating EPM; these drugs will kill the protozoan. The most common drug is trimethoprim-sulfamethoxazole, an antimicrobial. Anti-inflammatory therapy is recommended, and supplements of vitamins E and folic acid may aid in treatment. The prognosis is variable. Approximately 60 percent of affected horses respond to the therapy. Some undesirable effects of treatment may occur, and depending on the amount of nerve tissue damage, there may be no reversibility with treatment.

Prevention

The best preventive of EPM is to control the contact between opossums and horses in and around the barn. Keeping all food covered and out of reach is essential (especially if there is cat food around). The key to full recovery is to catch the disease early. The disease takes a minimum of two weeks to two years from exposure time until symptoms emerge. There is presently no vaccine, and it will be some time before an effective vaccine is available.

This fact sheet was gleaned from material provided by the eXtension website (extension.org), which came from many sources and is for informational purposes only. It is not intended to be a substitute for personalized professional advice. For specific local information, contact your local county Cooperative Extension office, your veterinarian or other qualified professionals.



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